

MEASURING APPARATUS OF FLOW RATE

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Classification:

- **International:** G01F1/66; G01F1/66; (IPC1-7): G01F1/66

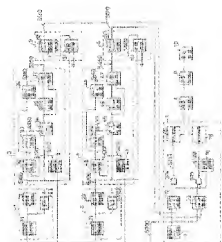
- **European:** G01F1/66F

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Abstract of JP 60187815 (A)

PURPOSE: To detect a flow rate accurately, by detecting the maximum value of a level of a signal received from an ultrasonic oscillator, and by detecting an initial zero-crossing generated thereafter. **CONSTITUTION:** Ultrasonic wave transmitter-receiver units 1 and 2 transmit ultrasonic waves to a fluid to be measured and receive same therefrom. Maximum value detector units 3 and 4 detect the maximum values of signals from received signal amplifier circuits 12 and 22. Zero point detector circuits 5 and 6 detect zero points beyond sections in which the maximum values are found. A time monitor unit 7 monitors a time from the drive of the ultrasonic waves to the reception thereof. A subtraction circuit 8 calculates an ultrasonic propagation time difference information, and a computing circuit 9 in the following stage computes a flow speed. In this circuit, a flow rate can be measured accurately even under the condition in which drive-damping frequency and a received wave overlap with each other.



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